A Newsletter About Prevention, Preparedness, and Response

Spill SCENE

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Spill Prevention, Preparedness, and Response Program

1999 Annual Report

Letter from the Program Manager

1999 proved to be a year of challenges and accomplishments for the Spill Prevention, Preparedness, and Response Program. Striving to enhance marine spill prevention through increased inspections of ocean-going vessels challenged our staff on the waterfront. Efforts to build a constructive forum to debate the need for spill risk reduction measures in the north Puget Sound tested our abilities to partner with regional stakeholders. All of this taking place while private entities and the federal government were challenging the need for a strong state role in spill prevention.

The June 10, 1999 pipeline explosion in Bellingham presented the opportunity to come together with other emergency responders and then continue working together during rehabilitation of the environment. And continued funding shortfalls in the face of increasing workloads threatened our creativity and perseverance to get the job done. As this report shows, Spills Program staff rose to these and other challenges to exceed many of our operational goals.

What will the future bring? Some themes are developing as we project budget needs for next biennium. We must continue to maintain a strong state role in the prevention of oil spills to assure Washington's natural resources are protected. In light of the recent United States v. Locke decision, we are looking to partner with the federal government and to strengthen our existing authorities.

The clandestine methamphetamine lab workload has more than tripled from 1997 while the funding resources are limited. We are aggressively working with other affected federal, state and local agencies to better coordinate our efforts to protect the public.

We intend to assure a strong coordinated regulatory program associated with petroleum pipelines. Our intent is to work closely with existing federal and state regulators while improving support to local governments. We will hold oil-handling facilities accountable for any environmental damages.

And we want to pick up our efforts in the area of information management. Our goal is to make our data more accessible to the public via our website (www.wa.gov/ecology/spills/spills.html). This ties in well with our desire to improve public outreach and education. Our

Program Overview

The Spill Prevention, Preparedness, and Response Program at the Washington Department of Ecology works to protect Washington's environment and public health and safety from the hazards created by spills of oil and other hazardous substances. The Program focuses on preventing oil spills to Washington waters and land, on effective response to oil and hazardous substance spills wherever they occur, and on mitigating the damage caused by spills.

The Program has about 52 staff – comprising spill responders, vessel inspectors, environmental planners, engineers, and other management and support staff. An additional 23 staff from other Ecology offices serve as part-time, after-hours spill responders. The Spills Program maintains vessel inspection field offices near the Seattle and Portland ports, regional response offices in Bellevue, Lacey, Yakima, and Spokane, and a headquarters' office in the Ecology building in Lacey.

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Program Overview cont.

Ecology staff have responded to spills since the Department's inception in 1970, but a full-time, dedicated spill response staff was not instituted until the early 1990s. In 1991, the Washington State Legislature passed the Oil Spill Prevention and Response Act in response to the 1988 *Nestucca* oil barge spill in Grays Harbor County and the 1989 *Exxon Valdez* oil spill in Alaska.

The Act set the funding mechanism and mandate for the state's spill program. It increased state involvement in oil spill prevention, preparedness, and response activities. Oil spill prevention activities were split between the state Office of Marine Safety (OMS), to oversee vessel marine safety and spill prevention activities, and the Department of Ecology, to oversee spill prevention activities at oil handling facilities (refineries, pipelines, etc.). In 1997, OMS merged with Ecology's spill prevention and response office to create the current Spills Program.

hope is to better meet the information needs of the public through these ongoing activities.

Our bottom line is this: We are here to assure that Washington state's invaluable natural resources are protected and we look to partnering with our stakeholders as we move forward. Let me know what you think or where we might be able to work more closely together.

Joe Stohr
Program Manager

Introduction

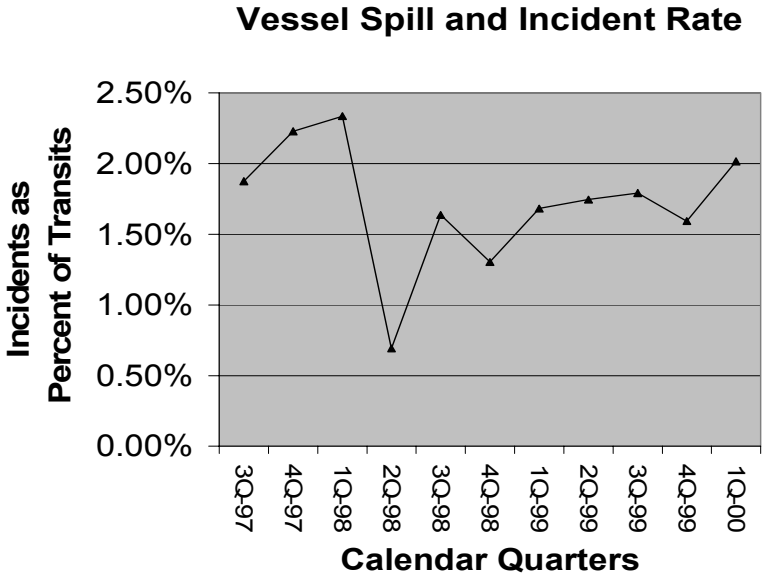
This annual report summarizes the 1999 activities of the Department of Ecology's Spill Prevention, Preparedness, and Response Program (Spills Program). The Spills Program works to protect human health and the environment from the threat posed by oil and hazardous substance spills to Washington's land and waters.

1999 Prevention Activities

Vessel Inspections and Investigations

In 1999, the Marine Safety Field Offices in Portland and Seattle achieved a major increase in the number of vessel inspections. The increase in inspections kept pace with the increased number of vessel transits through Washington waters. A small increase in the vessel incident rate may be a reflection of the increased percentage of entering vessels screening as high or very high potential risk.

This graph shows the cumulative vessel incident rate since mid-1997.



Spills staff analyze selected vessel incidents to publicize the lessons learned and to determine the facts to support or mitigate possible enforcement actions. During 1999, staff produced two Prevention Bulletins, analyzing a 1998 bunkering (fueling) spill in Tacoma and a 1998 grounding in South Puget Sound. They also issued two Safety Advisory Bulletins. The first, written in cooperation with the U.S. Coast Guard's Puget Sound Vessel Traffic Service, outlined the problems presented by small vessels operating in shipping traffic lanes. The second, written in cooperation with the Oregon Department of Environmental Quality in the wake of the *New Carissa* wreck, was intended to raise awareness of the hazards created by special conditions along the Oregon/Washington coast.

Summary Totals	1998	1999
Vessel Entering Transits to Washington Waters[1]	5,178	5,601
Cargo Vessel Screenings	2,629	2,651
Screened Vessels of High/Very High Risk	1,391	1,586
Incidents Reported[2]	94	107
Inspections	759	919
Citations Issued	141	155
Performance Indicators		
Incident Rate (% of vessel transits)	1.81%	1.91%
% Vessels Screening High/Very High Risk	52.9%	59.8%
Enforcement Actions (% of vessels inspected)	18.6%	16.9%

[1]Commercial cargo, passenger, and fishing vessels, 300 gross tons and larger, and all oil tankers. Does not include tank barges, ferries, or Canada-bound vessels.
[2]Spills and marine incidents (collision, loss of power, serious violation, etc.) for all vessels.

Planning

Companies operating oil tankers and tank barges in Washington waters must have vessel oil spill prevention plans meeting Best Achievable Protection (BAP) standards, and operate according to those plans. A company's plan can cover one or more vessels. In 1999, Spills Program staff received 35 vessel prevention plans. They also reviewed 29 plans for compliance, and granted full approval for 32 plans and conditional approval for one tank barge plan. SeaRiver Maritime, Inc. became the first company to receive Ecology's Exceptional Compliance (ECOPRO) award for exceeding the BAP standards for tank vessel safety and environmental stewardship.

There are 42 oil-handling facilities in Washington that come under Spills Program regulations. These facilities are required to establish personnel oil-handling training and certification programs to ensure that key personnel are adequately trained and have demonstrated competency. Ecology evaluates and certifies the adequacy of the facility's training program through on-site inspections every five years. During 1999, Ecology staff re-certified five of the regulated facilities' programs. Facilities must also prepare operations manuals and submit them to Ecology for review and approval. These manuals help ensure the facilities have incorporated BAP standards to prevent spills when they transfer oil. In 1999, Ecology staff completed the review and approval for more than 30 facility operations manuals.

Prevention Overview

Vessel Screening – Cargo and passenger vessels entering Washington waters are screened for potential environmental risks.

Vessel Boarding Program – Inspections evaluate the risk of harm to the public and environment posed by commercial ships.

Bunker Monitoring (Refueling) – Bunkering inspections help reduce the frequency of spills during fuel transfers.

Best Achievable Protection (BAP) Standards for Tank Vessels – Vessel owners submit spill prevention plans to Ecology to ensure that vessels apply BAP standards when operating in Washington waters.

Investigations – Investigations of vessel incidents (marine casualties, oil spills, near misses, etc.) help determine if prevention lessons can be learned.

Oil-Handling Facilities – Facility owners submit spill prevention plans to Ecology to ensure that facilities operate in a safe and pollution-free manner.

North Puget Sound Risk Management Plan

In the summer of 1999, Washington state and the U.S. Department of Transportation started the process of developing a long-term Risk Management Plan to address vessel oil spill risks in the North Puget Sound area. Ecology and the U.S. Coast Guard Thirteenth District are co-chairing a panel of stakeholders representing a broad range of private and public sector organizations. The group meets monthly to address issues of marine transportation safety and response to vessel emergencies and oil spills. They are expected to make their recommendations in mid-2000.

1999 Preparedness Activities

Facility Drills and Exercises

Spill drills and exercises help ensure everyone involved in responding to a spill is able to take the best possible actions. Ecology uses these drills to recommend how facilities and vessels can enhance their spill response readiness. During 1999, regulated oil-handling facilities in the state held many equipment deployment and tabletop (paper) drills to test the effectiveness of their contingency plans. Ecology participated in and evaluated 117 drills – 77 deployment drills and 40 tabletop drills. Some of the large-scale tabletop drills were with the U.S. Navy, SeaRiver Maritime, Crowley Petroleum Transport, and the Maritime Fire and Safety Association.

Vessel Drills

The vessel notification drill tests the ability of a vessel's crew to implement the initial spill notifications as described in the vessel's contingency plan. The master or crewmember is instructed to make notifications as they would if the vessel just experienced an oil spill. The vessel inspector verifies the crew member has the required vessel field document and can make the necessary notifications to the National Response Center, Washington Emergency Management Division, and to the vessel's primary response contractor.

Ecology vessel inspectors conducted 48 of these no-notice vessel notification drills in 1999. While the majority of these drills were completed satisfactorily, a few common problems included not having the required field document, not understanding the notification procedures, not contacting the state Emergency Management Division, and only contacting the ship's agent.

Ecology also held four no-notice equipment deployment drills. These drills test the initial response capabilities of the contingency plan holders and their primary response contractors, to make sure they can get their equipment and personnel where they need to be within the first few hours of a spill.

Contingency Plans

In 1999, the facility and vessel contingency planning staff updated Ecology's *Manual for Review of Facility and Vessel Oil Spill Contingency Plans,* which was released in April. They also reviewed plans that had reached the end of their five-year approvals.

Preparedness Overview

Oil Spill Drills and Contingency Plan Review – Oil handling facilities, oil tankers and barges, and fishing, cargo and passenger vessels must have approved oil spill contingency plans to operate in Washington waters. Contingency plans describe the immediate actions and notifications that must be done in the event of a spill.

Geographic Response Plans (GRPs) – GRPs identify and rank natural resource protection strategies for a particular region. This takes the guesswork out of the initial response during the first 12 to 24 hours.

Natural Resource Damage Assessments – Assess damages to state natural resources caused by oil spills and recover restoration costs from the parties responsible for the spill.

Interagency Coordination – Coordination between states and provinces along the West Coast ensures a consistent approach to spill prevention and response.

Education and Outreach – Provide education and outreach to constituents.

Plan review is an on-going process as new and expiring plans are submitted.

In late 1999, contingency plan staff began work on revising the rules governing vessel and facility oil spill contingency plans. Since the rules first took effect in 1991, many changes have taken place that affect how oil spill responses are conducted in Washington. These changes included new federal regulations, the development of the Northwest Area Contingency Plan, and the establishment of geographic response plans.

The rule revision effort will take advantage of the knowledge and experience that Ecology and the oil spill response community have gained in the last nine years. The goal is to improve oil spill response in Washington by creating rules that are more consistent with changes that have occurred, that are simpler by taking advantage of the planning that has been done, and that are more efficient by consolidating regulatory requirements.

Response Overview

24-Hour Statewide Response – Ecology provides round-the-clock response to oil and hazardous material spills that pose a risk to public health and safety and the environment.

Compliance and Enforcement – Once an oil spill occurs, Ecology can take a wide range of enforcement and compliance actions including administrative orders, field citations, penalties, and cost recovery of all response costs incurred by the state.

Cleanup Oversight – As the state natural resource trustee during an oil spill, Ecology has oversight authority to ensure that the responsible party is acting responsibly to clean up the spill and to fully protect the environment.

1999 Response Activities

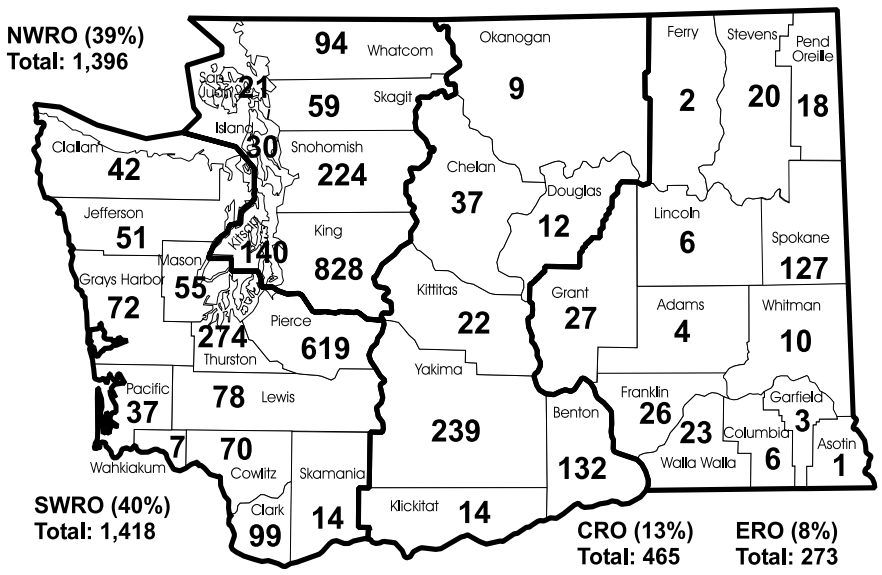
Pipeline Spill and Explosion

On June 10 an Olympic Pipe Line Co. underground pipe ruptured in Bellingham, dumping about 277,200 gallons of gasoline into Whatcom Creek. A spark ignited the spill, and the resulting fire burned two miles of the creek and killed two boys. A third young man was overcome by fumes and drowned. During the first days after the explosion, Spills Program staff worked on many elements of the response, including the Unified Command, which controlled all aspects of the response. After the initial emergency, Ecology's primary jobs at the site were assisting in investigating the causes of the leak, assessing the environmental damage, and devising a recovery plan, jobs that continued throughout the year. The cause of the rupture and spill is still under investigation.

Spills Reported

In 1999, the Spills Program received reports of 3,450 spills in Washington, and reports of 20 spills in Oregon and Canada. Staff conducted 1,117 field responses. This map illustrates where the reported spills occurred, by county and by Ecology region. The percentage figures reflect each region's portion of the total reported spills statewide.

Spill Reports by County for 1999



25+ Gallon Spills to Water[1] for 1999		
	Number of Spills	Gallons Spilled
Covered Vessels[2]	6	1,620
Uncovered Vessels	10	4,131
Other[3]	12	278,608
Total	28	284,359

[1]Water body or groundwater
[2]Vessels covered under state laws and rules (all cargo and passenger vessels 300 gross tons or larger, and all oil tankers and tank barges)
[3]Pipelines, tanks, tank trucks, etc.

Confirmed spills to water

In 1999 there were 28 spills of 25 or more gallons of oil or other hazardous substances, where the spill reached a water body or groundwater. A total of at least 284,359 gallons spilled in these incidents. This total includes 277,200 gallons of gasoline from the Olympic Pipe Line spill in Bellingham. In 1998, there were 26 spills over 25 gallons, for a total volume spilled of 15,867 gallons. In 1997 the figures were 23 spills and 9,923 gallons.

Drug labs

Ecology staff conducted 789 field responses in 1999 to clean up clandestine drug lab sites, primarily methamphetamine. This compares to 349 drug labs responded to in 1998 and 203 labs in 1997. These sites were found in 32 of Washington's 39 counties. Pierce County alone accounted for 318 of the labs responded to, earning it the dubious distinction of the county with the third highest rate of drug labs in the country.

Spills Program staff continued to look for ways to offset the costs of this skyrocketing response burden. They initiated a strategy of cutting overtime costs by working with law enforcement agencies to clean up labs during the day, and using U.S. Drug Enforcement Agency contractors as often as possible.

Spill Reports by Type for 1999	
Type of Substance	Number of Reports
Petroleum Products Gasoline, diesel fuel, crude oil, hydraulic oil, lubrication oil	1,515
Hazardous Substances Pesticides, insecticides, batteries, paint, other toxics (anhydrous ammonia, hydrochloric acid, solvents, lithium)	1,136
Miscellaneous Substances Wastewater, sewage sludge, garbage, dairy waste, algae	799

Enforcement

Washington's rules are designed to keep oil and other hazardous material spills from occurring, and to make sure that the best possible action is taken promptly if a spill does occur. Certain classes of vessels must maintain and comply with oil spill contingency plans; others must also maintain and comply with oil spill prevention plans. All vessels must comply with the state's refueling requirements, and show that they pose no substantial risk of harm to public health and safety or the environment.

Oil handling facilities must also comply with laws and rules designed to prevent oil spills and ensure best possible action when a spill occurs. The rules address operation and design standards, operating procedures, personnel training, and spill prevention plans.

Ecology can respond to spills and violations of these rules in a variety of ways, including issuing penalties, warnings, and administrative orders, and requiring the responsible party to make changes to correct the problem. In 1999, Ecology issued a total of $243,500 in penalties and three administrative orders for large oil spills. Eleven oil spill field citations for lesser spills resulted in an additional

$9,500 in penalties. These figures compare to 1998, when the agency issued $368,660 in penalties, $7,000 in field citation penalties, and one administrative order related to spills.

The largest 1999 penalty was $120,000 to Olympic Pipeline Company for negligent discharge of oil from the company's Renton facility. The spill occurred when a stud holding the coverplate on an injection pump broke and the pump failed. The pump lacked containment and some time went by before the spill was discovered. About 600 gallons were discharged into the groundwater.

Another significant penalty was $112,500 to CleanCare for reckless discharge of oil. The facility pumped about 2,000 gallons of oil waste into a stormwater system that led through a series of ditches and into the Blair Waterway in Tacoma.

Investigations

Spill prevention staff participated in the National Transportation Safety Board's investigation into the Bellingham spill and explosion. Staff also conduct facility spill investigations to determine the causes of spills and to identify any preventive measures that need to be implemented to prevent similar incidents from recurring, and assist in enforcement actions when necessary. In 1999, staff conducted 12 spill causal investigations out of a total of 35 facility oil spills.

During 1999, staff completed 15 investigations of vessel incidents. Three of these investigations were carried out in support of Natural Resource Damage Assessment settlements or spill penalties.

1999 Restoration Activities

In addition to penalties and cleanup expenses, those responsible for oil spills must compensate Washington citizens for damage to public natural resources. Ecology coordinates the assessment of oil spill damages and oversees efforts to restore injured resources in cooperation with other state resource agencies.

During 1999, 28 spills occurred that triggered the Natural Resource Damage Assessment process. As of March 2000, the monetary assessment has been determined for 21 of those cases, for a total of $51,919. Assessments may be collected during the year the spill occurs, or in later years. In 1999, more than $455,390 was collected for restoration projects.

In 1999, restoration funds bought 450 acres of intertidal land in south Fidalgo Bay near Anacortes. The Department of Natural Resources now holds title to this area of high quality pristine eelgrass habitat. Eelgrass habitat is vitally important to herring and other forage fish production. Restoration funds also continued to support spartina removal projects in Puget Sound.

The U.S. Navy settled the damage assessments for three spills by providing labor, equipment and supplies for three separate projects. They planted trees along a tributary to Quilceda Creek, cleaned up a beach and transplanted beach grass at the Bangor Submarine Base, and maintained two salmon habitat enhancement projects in the Jim Creek Watershed.

Spill Scene

Spill Scene is published by the *Washington State Department of Ecology* to provide information on oil and hazardous substance spill prevention, preparedness and response. We welcome your comments and questions. Call (360) 407-7211 or write: Editor, **Spill Scene**, Department of Ecology, Spills Program, P.O. Box 47701, Olympia, WA 98504-7701. Visit our website at www.wa.gov/ecology/spills/spills.html.

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